

**Research Article**

## **A STUDY ON THE PLACE THAT WATER OCCUPIES ARCHITECTURE OF IRANIAN HOUSES OF WORSHIP, THROUGH ISLAM AND ZOROASTER**

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### **ABSTRACT**

In Persian culture, water has always been greatly respected and as one of the four holy elements in Zoroastrianism (along with wind, earth and fire), it should be kept clean and far from dirtiness. Islam holds water as the origin of life and several verses in Koran are devoted to it, namely verseno. 31 in surah Anbia which reads, “We gave life to everything from water”. Besides religious aspects, parsing water by Iranians stem from the dry climate in Iran and therefore Iranians has always shown great skill in harnessing and using water, and creations based on water is one of the things Iranians left behind for the world architecture to bequeath. Without a doubt, traditional Iranian Architecture has possessed a high status in the world architecture and is regarded as the heights of human civilization. Architecture subjugates the cultural-divinely spirituality around it, calls it up in its own space and makes it spatial and reifies it as a result it becomes home to culture and spirituality. Among inner organs in each city or town, houses of worship have possessed a unique place and have been more distinguished among other organs. After the name of water goddess, Anahiti, Iranians erected houses of worship and majestic Ahura, accompanied by his good creatures, was worshiped. Mosque was a universal symbol for the idea of transcendental thought of Islamic monism, but in Iranian architecture, was also blended with Iranian Ishraq (intuitional wisdom). In the center of mosque yard, water, the symbol of cleanliness, appears in a big pool and similar to ancient Iranian thought, in Islamic thought angles oversee it; and the image of building with a backdrop of sky bounces of the surface of water as a testimony to the union of the earth and the sky. When this delicate mirror, breaks of by a minor ripple, a thoughtful and mystic person open their inner eye to the fact that nothing but God is perishable and therefore, water is a token into God’s wisdom, human and the world, and cleanses body, purifies soul and endows life.

**Keywords:** *Water, House of Worship, Islamic Architecture, Zoroastrian Architecture*

### **INTRODUCTION**

In ancient Iran, water is a messenger of light and purification and was greatly valued. Since Iran has always been short on water, it was highly regarded with respect. For Iranians, water not only met their needs, but also had great spiritual impact. Water, through its varying potential to be a source of life, freshness, brightness, cleanliness, development, radiance, stillness, peace and mobility, arouses different sensations in human soul. As a result, in all human-made structures, it has always held a unique place.

Iranian architecture as the most prominent index of our cultural identity, and has been guarded throughout history and delivered to us; architecture is thinking and a kind of thinking that extends to a large part of human life and all elements of life are influenced by the thought and soul of architects. Since original Iranian architecture is the symbol of Iranian identity and Iranian culture and history is integrated with architectural signs and elements, Iranian culture can be introduced to the world.

#### ***Philosophy and Remarkable Example Of Using Water In Iranian Architecture***

Before and after Islam, Iranians gave high importance to cleanliness, and appearance of Islam heightened the issue.

Before Islam, followers of Mehr and Zoroastrianism cared about cleanliness and the word “padyav” (meant ablution and cleaning and the word “pasio” meant the same thing) originated at that time. This word has become “patio” in French and has returned to Farsi as “pacio”.

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In the far past (between 1500 to 2000 years ago) washing was not the same as today. Bathroom was a large building with a huge container called “Abzan”. Since water was regarded holy and was not supposed to be polluted, water used for bathing let out on the earth or thrown into the sky, and never added it to unpolluted water (Pirnia, 2005).

Basically, in Iran, finding water and particularly old water has always been a problem. Water reservoir is a structure build in many parts of Iran and neighboring countries to provide people with water supply and reserve water, because water has been essential to human life and Iranians have always been inclined to drink things cold, so they used ice and snow to make drinks cold.

In cold part of the country, ice and snow would survive in shades of mountains, even in the summer, and villager extracted and used it to keep water cold and prevent the food from corruption. Keeping Ice and preventing it from melting requires special skill, but in tropical regions with their volatile climate and hot and dry days next to cold nights, human-made refrigerators are used.

No information is available about other architectural elements such as cold water wells, only that they were filled with snow in the winter and used in the summer. Almost all houses had a garden and a pool. Iranians deemed necessary the presence of one of the four holy elements in their houses.

From the far past to present, washing and cleanliness has always been of particular importance, because people of the past knew well that permissiveness about personal hygiene led to different contagious diseases and also cleanliness of soul follows cleanliness of body.

Based on historical documents, history of washing in Iran goes back to the time before Zoroaster and even worshipers of the sun had to be ablated for three day and nights for regular intervals before they attended the religious rituals. Therefore, houses of worship and sanctuaries had to be erected in a place where stream of water could flow through it or there was a spring nearby. With the advent of Islam and its emphasis on purging and cleanliness, a change occurred in the social life.

Frequent compulsory ablutions and five times daily washing as *Vozoo* (washing up before daily prayers in Islam) in a day, gained significant importance for peoples’ hygiene and Muslims motto became “cleanliness is the sign of faith”. Therefore, public bathrooms were built extensively and gained popularity with people.

Iran doesn't get much rain and there few overflowing, deep rivers to be found it. In spite of this fact, due to the vastness of Persian Empire and the demand for safe connecting routes over rivers and streams, bridges were vital for the country; but the function of a bridge was not just a connector and included the ones below:

-from Achaemenids era, bridges functioned both as a bridge and as a dim. So water was reserved for the time of shortage in supply. These bridge-dims also divided water and a portion of river water was carried over to no-water-access regions. So, in addition to development in agriculture and growth around population centers, these bridge-dims had positive impact on the climate in neighboring cities and towns, especially in hot and dry regions and increased the level of humidity and decreased fluctuations in temperature during a day.

- Next to and under many of the bridges, water mills were erected and the water power was used to move millstone.

- Bridges made for ideal place for controlling routes and caravans and upon most of them were petrol stations and sometimes regarded as city gates.

- Also taxes were collected on the bridges.

- Strategically speaking, bridges played a major role in connecting the warfront with the line behind in order to send food and equipment, and occupying bridges was crucial in the way to conquer the cities and also functioned as a protective fort.

- And finally, within the cities, bridges were the gathering places and recreational and shopping centers (Qobadyan, 2011).

Yard is one of the most important elements in Islamic mosque architecture, and following the plan and design of the first mosque in the world of Islam, is either rectangular or square and creates an open and spiritual space those who enter the mosque. In fact, shape and form and decorative elements are presented

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in the yard and on entering the mosque, many of the architectural and decorative elements will be seen on the first sight, and we get back to this point later on in this essay (Brund, 2001).

#### ***Architecture in Houses of Worship***

In pre-Islam Iran, architecture was present near water and in the heart of nature without interrupting them and water had a non-physical role. Houses of worship, temples and fire-temples were formed nest to water and with great respect to it. As if water was the human's passageway into the other world.

So water showed its divinely role in Iranian architecture, in that, water circulation in the non-physical role of water and the essence of water with its properties are manifested non-physically and the intention behind this dramatic aspect is the worship of water.

Therefore, rivers, springs and lakes held a religious and doctrinal status. This status wouldn't take shape, unless there were buildings that manifested beliefs, myths, manners and traditions.

#### ***The Role Water Plays In Architecture***

Presence of water, the element we are always drawn to, like always brings about tenderness in this art.

From the very long past, in different cultures and climates, water has had a symbolic significance. Understanding the role of water in architecture or water architecture is contingent upon understanding mechanics of water, human sensations to action and reaction in water, and importantly its role, allusion and relation to human life.

Presence of water in architecture, in addition to the elegance of the building, helps human see the environment and by means of stimulating sight, hearing and touch, feel it even more closely and when we are near water, we better understand the meaning of space in combination and contrast it creates with the nature.

Iranians have always been acquainted with beauty and peace brought about by water and in water architecture, it is as if they have invited it to stay in their homes and make them delighted. Employing the quality of reflection, depth and limitlessness of layers of water, designers expand the privacy of the individuals and remove the sense of suffocation in closed places.

Water is one of the natural elements with immutable essence. Wherever it appears, its function should reveal the impression that designers and constructors get from nature.

#### ***The Place Water Occupies In Iranian Architecture***

In Islamic Iran water finds a practical role. Now, architects quite consciously tried to dominate nature and give it an organization. Using the logic and technology of the age, harnessed water and nature and made them richer. Before Islam, architecture sought to reside nest to water. After Islam, with the knowledge of physical rules governing water and understanding the role, allusion and its relation to human, architects absorbed water into their work. Water organized in geometrical shapes appeared in most buildings of Islamic era, and unity and centrality in this architecture forms around water. Centrality of water began in Sassanid architecture and with temple of Anahiti in Bishapour. In Islamic era, evolved form of the centrality of water to architecture was achieved. It moves through our religious, literary and artistic culture. In literature and mysticism, water means knowledge, as life in about knowledge. Water found it way deep into the structure and combination of buildings and it is almost impossible to separate it from constructed form. Water appeared in the center of palaces and gardens, and in the middle of central yard in mosques, schools, caravans, houses. In the architecture found in the central barren Iran, water is scarce and life giving and lead to the architecture of water reservoirs, shoals, penthouses and refrigerators.

Iranian architecture in all its varying forms has always had an essential connection with water and, it appears in houses, in the middle of caravansaries, palaces and in front of patios. This water reflects the artist's art and the world around. The secret of the presence of water in the architecture is to be found in the importance of water and Anahiti in the beliefs of the ancestors. From the ancient time, due to the shortage of water in the greater part of Iran, Iranians hold a great value and credit for water and magnificent houses of worship were erected to glorify the guardian goddess of water, Anahiti (Nahid).

#### ***The Place of Water in Mosques (Islamic Houses of Worship)***

In mosques, in addition to its cleansing role, water is also a symbol of both life and death and functions as a bridge from the earthy world to the spiritual world. Water is clean, pure and holy by nature, cleanses

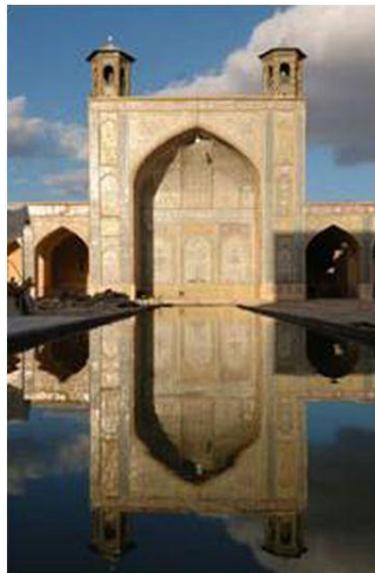
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human soul and body and delivers him/her as a newly-born, free creature to peacefully attain perfection. Vozoo and ablution not only purges body of dirt, but also serves as symbol that purges the soul of sins and filth. Cleansing with water is an allusion to uninterrupted birth and rebirth and carries a sense of fresh life. Contact with water is present in all senses and reflects in the mind and secures the peace for the believers to pray.

- Shoals (running water)
- Front pool (still water)
- Inflowing water stone (still water)
- Fountain (water as a moving element)

Water is an inseparable component in constructing mosques, no matter a small mosque as a shelter or a well-designed mosque (Zade, 2005).

In constructing Iranian mosques, water has had to different functions. Mosques usually had a Vozoo house and large pools for the believers to use. This is the necessary aspect of water in mosques. On the other hand, we see pools such the ones in front of the mosque, that didn't have the regular function. To find out the reason for the construction of such pools we can look back at religious and public buildings from pre-Islamic era, where such pools were erected in front of the main patio of the building so that the image of the building would be reflected and more importantly, the concepts of clarity, reflection and mirror effect were encouraged in the beholder. So the construction of such pools was a principle in Iranian architecture, as it is illustrated in figure 1 (Qahi, 2005).



**Figure 1: Vakil mosque, Shiraz**

Presence of water pools in mosque yards and shrines is important from several aspects: the first is the ratification of the air, which is intensified by the fountains inside or around it. The second is the presence of water spouts around these pools for washing hands and Vozoo, and the third is the presence of water and reflection which carry an image of the sky, and this third aspect has been employed artistically by the architects.

Accompaniment of houses of worship (mosques) by water (streaming water or a suitable volume of that in the pool) developed in the way of perfection after Islam and reached a point where different forms of that (shoal, pool, water reservoir) were an inseparable part of religious buildings, namely mosques. Quite naturally, such religion and culture make it necessary for the proximity and quick and convenient access to cleaning recourses of water (Vozoo house, bathroom and streaming water). This issue was particularly considered in religious buildings and consequently in houses and the center of neighborhoods.

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*The Place of Water In Temples (Ancient Houses Of Worship)*

In ancient religions, was synonymous with the goddess of productivity and was worshipped in many of the temples. Ancient Iranians worshipped Anahiti, the goddess of water and productivity, although in many of the religions water was used for cleaning body in religious rituals. To better understand respect that Iranians felt for water, now fully analyze one of these temples.

4-2-1) Anahiti Temple (Kazeroon)

Anahiti temple is one of the famous buildings in ancient city of Bishapour, Kazeroon, which was built in Sassanid era and today only remnants of it exists. Bishapour is 200 hectare in area, and was an important terminal city of its time. It was one of the oldest cities and its history of construction has survived engraved in stone and had an especial design and engineering. Bishapour is a treasure of precious work from Sassanid era, namely Anahiti temple.

This temple is a cube, with sides of 14 meters and is constructed using carved stones of varying sizes which are erected in two walls without any paste. This building was inspired by Achaemenids architecture and the walls are connected by metal locks (figure 2). Anahiti temple lacked a flat roof. Bishapour temple is the symbol of worshipping house for water and can be regarded a place to worship water. This temple, Not only from architectural point of view, but also in following machines of adjusting, dividing and controlling water is a perfect example (Hashemi, 2009).



**Figure 2: Anahiti temple in Bishapour**

There was a narrow stream in the hallway of the temple which carried water in the past and the machines used for the flow of water are among the wonders of Iranian architecture (figure 3)



**Figure 3: Corridors in Bishapour temple**

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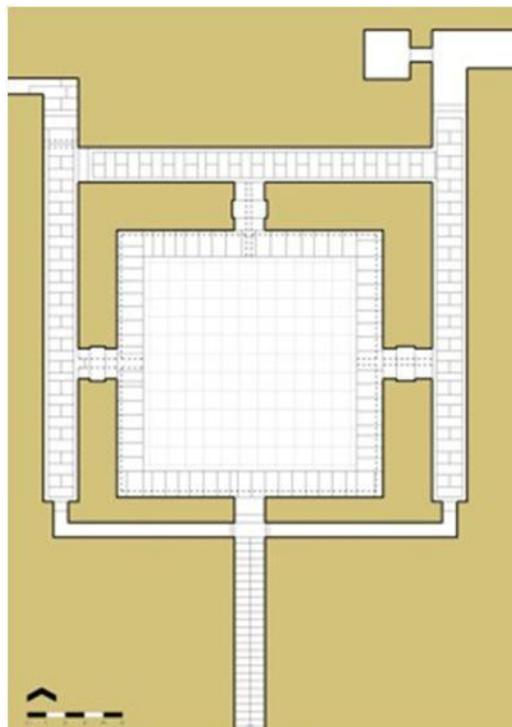
Water was so holy and significant that was regarded a goddess and a temple would be constructed to its honor. Anahiti temple in Bishapour is a clever answer to the question that, “How can we prepare a place for worshipping water according to myths and doctrines?”

In the square space of the temple (figure 4), there is a square basin with sides of 11.10 meters and height of 40 centimeters and the floor is paved with regular stones of 1 square meters. A platform of 140 cm in width runs around the basin and appears to be the gathering place for worshippers during a ritual. In the middle of each side there is doorway of 4 meters.



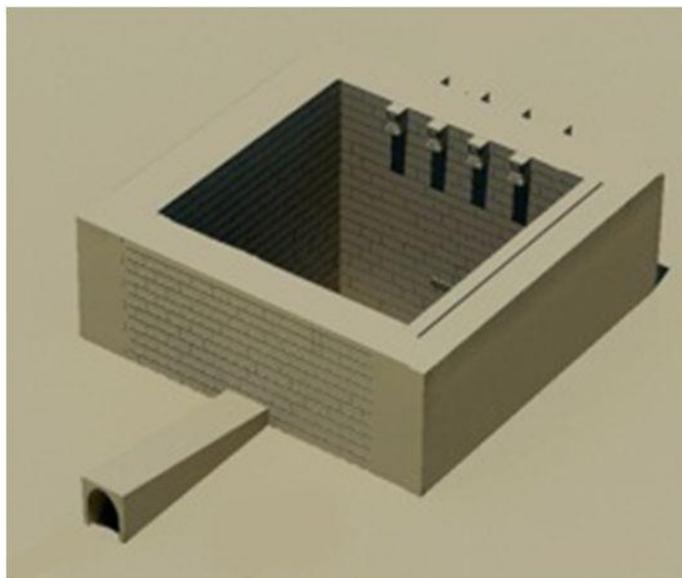
**Picture 4: Photo from inside the yard**

Architecture and decorations on the doorways reminds one of Achaemenids architecture, particularly the decorations on the crown of the doorways which imitate crowns of doorways in Persepolis, and this imitation doesn't seem out of place, as the Sassanid thought of themselves as the inheritors of the Persian ancestors in all areas (figures 5 and 6).



**Figure 5: Anahiti temple plan**

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**Figure 6: Reconstruction of the general plan of Anahiti temple**

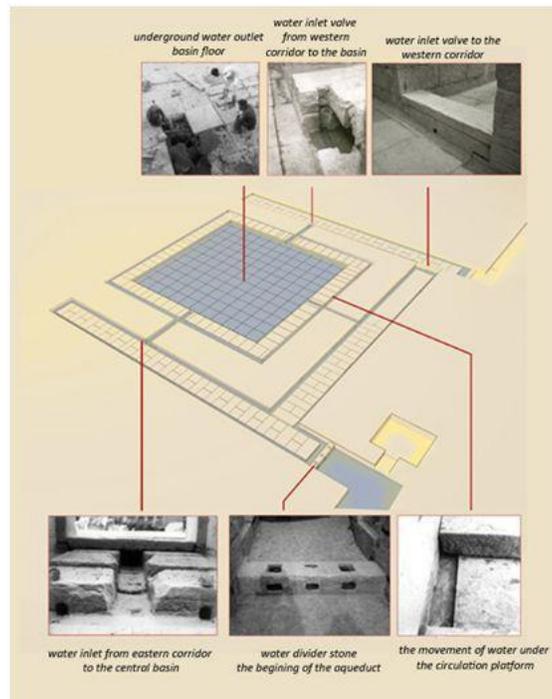
Southern wing doorway is the main entrance to the building and there is a corridor with 24 steps which connects the platform around the basin with the surface of the earth. Around the main square space and behind the doorway, there are four corridors that contrary to the main building is, are covered on top with Ahang vaults. 3 northern, western and eastern corridors are 22 meters long and 1.83 wide and carry water regularly and dramatically to the main basin. Southern corridor which lies in the southern wall is narrower than the three other corridors and sits on a higher level. On the western and eastern end of southern corridor, two vaulted doorway opened onto eastern and western corridor and made it possible two view water circulation in these two corridors. Walls separating the distance between the main space and water stream corridors were two walls of carved stone and 235 cm in diameter. The distance between the two spectra was filled with broken stone and dirt and above 5 meters was filled with broken stone and plaster.

Water Circulation in Anahiti Temple

This building with all the precision and decoration is constructed to demonstrate the holy element of water and according to a specified sketch and plan was designed so as to carry water from Shapour River 250 meters away into the building. Control system and water adjustment inside the temple is a wonderful and amazing story. "...The foundation of the temple was a kind of water divider and adjuster at the beginning of the aqueduct and a water petrol booth was installed ... in the middle of each water channels in the stones beneath the gravel a hole was carved so that on demand (possibly in ceremonies and religious rituals and festivals) the water would run in to the temple. To this purpose, water adjusting stone was installed in a way that the west channel carried water into a narrow cut of 7 meters in depth which was carved along the eastern corridor. After passing through the entire margin of the corridor, a portion of the water from beneath the gravel of the eastern gate and a channel runs onto the central yard and the superfluous water flows into northern corridor channel and, as another portion of the water streams into the internal basin via the northern gate, extra water joins with the running water from the right channel of the water divider and via a hole in the end of northern corridor, passes through the two branches with force and flows into the west corridor and the branch divides into two and in the same way, the water in the north and west corridor passes through the entire west corridor and by means of the central channel in western gate flows onto the central basin...

Another interesting point is that, in order to secure a regular flow of water, inside the channel and water inlet to the inner yard, two small adjustable holes are made around the main channel in the gravel stones (figure 7) and they carry special tasks...

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**Picture 7: Water circulation system Anahiti temple**

... It is notable that the water circulation system in the temple is based on triple principles and therefore water reaches the patio of the temple via three channels of water adjusting stone (water divider), a n then flows onto the yard through 3 channels and we also noticed that the outflow of water follow the same principles. It is certain that observing 3 principles in daily life was doctrinal and in direct with water goddess” (kiani, 1998).

## CONCLUSION

“Islamic culture and civilization” employed art and artistic creations as a means to pray, purging, purification, acquire virtues, manners and morality, and transcend human and so much valuable outcome was achieved in the history of Islam. It should be noted that the Muslim artists and architects drew from honesty, good intentions and sincere effort in constructing all buildings and no Islamic building is an exception. But the manifestation of Islamic art and architecture in religious and non-profit buildings is prominent. In these buildings, work and artwork, is elevated to the same level as praying and leaving good deeds behind.

In current essay, we studied the importance of water to religious buildings and different roles that water plays in these places. Mosques and similar buildings are either located near water or water is carried to these places. In fact, in these buildings, water is a tool in the hands of the architect, so that by a clever process, while facilitating the functional use, engage with the meaning and manifest the spatial holiness.

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